Zoe V Finkel

List of Publications by Year
in descending order

88 papers	7,797 citations	71061 41 h-index	60583 81 g-index
95 all docs	95 docs citations	95 times ranked	7724 citing authors

#	Article	IF	Citations
1	Phytoplankton in a changing world: cell size and elemental stoichiometry. Journal of Plankton Research, 2010, 32, 119-137.	0.8	909
2	THE ELEMENTAL COMPOSITION OF SOME MARINE PHYTOPLANKTON1. Journal of Phycology, 2003, 39, 1145-1159.	1.0	614
3	The evolutionary inheritance of elemental stoichiometry in marine phytoplankton. Nature, 2003, 425, 291-294.	13.7	481
4	Influence of diatom diversity on the ocean biological carbon pump. Nature Geoscience, 2018, 11, 27-37.	5.4	451
5	Scaling-up from nutrient physiology to the size-structure of phytoplankton communities. Journal of Plankton Research, 2006, 28, 459-471.	0.8	288
6	The biogeography of marine plankton traits. Ecology Letters, 2013, 16, 522-534.	3.0	258
7	Are you what you eat? Physiological constraints on organismal stoichiometry in an elementally imbalanced world. Oikos, 2005, 109, 18-28.	1.2	240
8	Extinctions in ancient and modern seas. Trends in Ecology and Evolution, 2012, 27, 608-617.	4.2	221
9	Cell size tradeâ€offs govern light exploitation strategies in marine phytoplankton. Environmental Microbiology, 2010, 12, 95-104.	1.8	215
10	Light absorption and size scaling of lightâ€limited metabolism in marine diatoms. Limnology and Oceanography, 2001, 46, 86-94.	1.6	213
11	Anthropogenic climate change drives shift and shuffle in North Atlantic phytoplankton communities. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 2964-2969.	3.3	204
12	Evolutionary Trajectories and Biogeochemical Impacts of Marine Eukaryotic Phytoplankton. Annual Review of Ecology, Evolution, and Systematics, 2004, 35, 523-556.	3.8	192
13	Nitrogenâ€fixation strategies and Fe requirements in cyanobacteria. Limnology and Oceanography, 2007, 52, 2260-2269.	1.6	184
14	Climatically driven macroevolutionary patterns in the size of marine diatoms over the Cenozoic. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 8927-8932.	3.3	172
15	Resource limitation alters the 3/4 size scaling of metabolic rates in phytoplankton. Marine Ecology - Progress Series, 2004, 273, 269-279.	0.9	155
16	Phylogenetic Diversity in the Macromolecular Composition of Microalgae. PLoS ONE, 2016, 11, e0155977.	1.1	149
17	Allometry and stoichiometry of unicellular, colonial and multicellular phytoplankton. New Phytologist, 2009, 181, 295-309.	3.5	138
18	Decadal variability in coastal phytoplankton community composition in a changing West Antarctic Peninsula. Deep-Sea Research Part I: Oceanographic Research Papers, 2017, 124, 42-54.	0.6	138

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19	Ocean acidification enhances the growth rate of larger diatoms. Limnology and Oceanography, 2014, 59, 1027-1034.	1.6	135
20	Evolutionary inheritance of elemental stoichiometry in phytoplankton. Proceedings of the Royal Society B: Biological Sciences, 2011, 278, 526-534.	1.2	118
21	Phytoplankton niches estimated from field data. Limnology and Oceanography, 2012, 57, 787-797.	1.6	118
22	Phytoplankton adapt to changing ocean environments. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 5762-5766.	3.3	114
23	Paleontological baselines for evaluating extinction risk in the modern oceans. Science, 2015, 348, 567-570.	6.0	111
24	Light Variability Illuminates Niche-Partitioning among Marine Picocyanobacteria. PLoS ONE, 2007, 2, e1341.	1.1	108
25	IS THE GROWTH RATE HYPOTHESIS APPLICABLE TO MICROALGAE?1. Journal of Phycology, 2010, 46, 1-12.	1.0	105
26	The role of microbial exopolymers in determining the fate of oil and chemical dispersants in the ocean. Limnology and Oceanography Letters, 2016, 1, 3-26.	1.6	105
27	A universal driver of macroevolutionary change in the size of marine phytoplankton over the Cenozoic. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 20416-20420.	3.3	101
28	Irradiance and the elemental stoichiometry of marine phytoplankton. Limnology and Oceanography, 2006, 51, 2690-2701.	1.6	100
29	On the roles of cell size and trophic strategy in North Atlantic diatom and dinoflagellate communities. Limnology and Oceanography, 2013, 58, 254-266.	1.6	91
30	Contrasting photoacclimation costs in ecotypes of the marine eukaryotic picoplankter <i>Ostreococcus</i>. Limnology and Oceanography, 2008, 53, 255-265.	1.6	83
31	The Macromolecular Basis of Phytoplankton C:N:P Under Nitrogen Starvation. Frontiers in Microbiology, 2019, 10, 763.	1.5	80
32	Physiological basis for high resistance to photoinhibition under nitrogen depletion in <i>Emiliania huxleyi</i>. Limnology and Oceanography, 2010, 55, 2150-2160.	1.6	68
33	Modeling Size-dependent Photosynthesis: Light Absorption and the Allometric Rule. Journal of Theoretical Biology, 2000, 204, 361-369.	0.8	65
34	Environmental control of diatom community size structure varies across aquatic ecosystems. Proceedings of the Royal Society B: Biological Sciences, 2009, 276, 1627-1634.	1.2	64
35	Silica Use Through Time: Macroevolutionary Change in the Morphology of the Diatom Fustule. Geomicrobiology Journal, 2010, 27, 596-608.	1.0	57
36	Watercolors in the Coastal Zone: What Can We See?. Oceanography, 2004, 17, 24-31.	0.5	57

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37	Light and nutrient availability affect the size-scaling of growth in phytoplankton. Journal of Theoretical Biology, 2009, 259, 582-588.	0.8	51
38	Molecular mechanisms of temperature acclimation and adaptation in marine diatoms. ISME Journal, 2019, 13, 2415-2425.	4.4	48
39	Ecological equivalence of species within phytoplankton functional groups. Functional Ecology, 2016, 30, 1714-1722.	1.7	47
40	Nitrogen starvation induces distinct photosynthetic responses and recovery dynamics in diatoms and prasinophytes. PLoS ONE, 2018, 13, e0195705.	1.1	47
41	Which environmental factors control phytoplankton populations? A Bayesian variable selection approach. Ecological Modelling, 2013, 269, 1-8.	1.2	43
42	Physiological response of 10 phytoplankton species exposed to macondo oil and the dispersant, Corexit. Journal of Phycology, 2018, 54, 317-328.	1.0	42
43	Mining a Sea of Data: Deducing the Environmental Controls of Ocean Chlorophyll. PLoS ONE, 2008, 3, e3836.	1.1	39
44	Phylogenetic diversity in cadmium : phosphorus ratio regulation by marine phytoplankton. Limnology and Oceanography, 2007, 52, 1131-1138.	1.6	33
45	Marine extinction risk shaped by traitâ€“environment interactions over 500Âmillion years. Global Change Biology, 2015, 21, 3595-3607.	4.2	31
46	Anthropogenic climate change impacts on copepod trait biogeography. Global Change Biology, 2021, 27, 1431-1442.	4.2	31
47	Environmental control of the dominant phytoplankton in the Cariaco basin: a hierarchical Bayesian approach. Marine Biology Research, 2013, 9, 246-260.	0.3	30
48	Size-scaling of macromolecules and chemical energy content in the eukaryotic microalgae. Journal of Plankton Research, 2016, 38, 1151-1162.	0.8	28
49	Response of natural phytoplankton communities exposed to crude oil and chemical dispersants during a mesocosm experiment. Aquatic Toxicology, 2019, 206, 43-53.	1.9	28
50	Traits structure copepod niches in the North Atlantic and Southern Ocean. Marine Ecology - Progress Series, 2018, 601, 109-126.	0.9	25
51	Genotypic and phenotypic variation in diatom silicification under paleoâ€oceanographic conditions. Geobiology, 2010, 8, 433-445.	1.1	24
52	Light absorption by phytoplankton and the filter amplification correction: cell size and species effects. Journal of Experimental Marine Biology and Ecology, 2001, 259, 51-61.	0.7	21
53	Large centric diatoms allocate more cellular nitrogen to photosynthesis to counter slower RUBISCO turnover rates. Frontiers in Marine Science, 2014, 1, .	1.2	19
54	Phytoplankton traits from long-term oceanographic time-series. Marine Ecology - Progress Series, 2017, 576, 11-25.	0.9	18

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55	Macroevolutionary trends in silicoflagellate skeletal morphology: the costs and benefits of silicification. Paleobiology, 2012, 38, 391-402.	1.3	17
56	Biogeographic distribution of diversity and size-structure of organic-walled dinoflagellate cysts. Marine Ecology - Progress Series, 2011, 425, 35-45.	0.9	16
57	Silicification in the Microalgae. , 2016, , 289-300.		16
58	Trait-dependent variability of the response of marine phytoplankton to oil and dispersant exposure. Marine Pollution Bulletin, 2020, 153, 110906.	2.3	16
59	Basin-scale biogeography of marine phytoplankton reflects cellular-scale optimization of metabolism and physiology. Science Advances, 2022, 8, eabl4930.	4.7	16
60	The Joggins Fossil Cliffs UNESCO World Heritage site: a review of recent research. Atlantic Geology, 0, 47, 185-200.	0.2	15
61	Phytoplankton Realized Niches Track Changing Oceanic Conditions at a Long-Term Coastal Station off Sydney Australia. Frontiers in Marine Science, 2018, 5, .	1.2	15
62	Phytoplankton growth allometry and size- dependent C:N stoichiometry revealed by a variable quota model. Marine Ecology - Progress Series, 2011, 434, 29-43.	0.9	14
63	Influence of Cell Size and DNA Content on Growth Rate and Photosystem II Function in Cryptic Species of Ditylum brightwellii. PLoS ONE, 2012, 7, e52916.	1.1	14
64	Extracting phytoplankton physiological traits from batch and chemostat culture data. Limnology and Oceanography: Methods, 2017, 15, 453-466.	1.0	13
65	Methodological biases in estimates of macroalgal macromolecular composition. Limnology and Oceanography: Methods, 2017, 15, 618-630.	1.0	12
66	Marine Net Primary Production. , 2014, , 117-124.		12
67	Growth dynamics and domoic acid production of Pseudo-nitzschia sp. in response to oil and dispersant exposure. Harmful Algae, 2019, 86, 55-63.	2.2	11
68	Capacity of the common Arctic picoeukaryote <i>Micromonas</i> to adapt to a warming ocean. Limnology and Oceanography Letters, 2020, 5, 221-227.	1.6	9
69	Dynamic Photophysiological Stress Response of a Model Diatom to Ten Environmental Stresses. Journal of Phycology, 2021, 57, 484-495.	1.0	9
70	The macromolecular composition of noncalcified marine macroalgae. Journal of Phycology, 2019, 55, 1361-1369.	1.0	8
71	A ribosomal sequence-based oil sensitivity index for phytoplankton groups. Marine Pollution Bulletin, 2020, 151, 110798.	2.3	8
72	Bayesian inference to partition determinants of community dynamics from observational time series. Community Ecology, 2019, 20, 238-251.	0.5	7

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73	Quantifying nutrient throughput and DOM production by algae in continuous culture. Journal of Theoretical Biology, 2020, 494, 110214.	0.8	7
74	Traits influence dinoflagellate C:N:P. European Journal of Phycology, 2022, 57, 154-165.	0.9	6
75	Growthâ€dependent changes in elemental stoichiometry and macromolecular allocation in the coccolithophore <scp><i>Emiliania huxleyi</i></scp> under different environmental conditions. Limnology and Oceanography, 2021, 66, 2999-3009.	1.6	6
76	Evolutionary mode of the ostracod,Velatomorpha altilis, from the Joggins Fossil Cliffs UNESCO World Heritage Site. Lethaia, 2012, 45, 615-623.	0.6	4
77	Niche conservation in copepods between ocean basins. Ecography, 2021, 44, 1653-1664.	2.1	4
78	Elemental and macromolecular composition of the marine Chloropicophyceae, a major group of oceanic photosynthetic picoeukaryotes. Limnology and Oceanography, 2022, 67, 540-551.	1.6	4
79	Photosynthetic adaptation to light availability shapes the ecological success of bloomâ€forming cyanobacterium <i>Pseudanabaena</i> to iron limitation. Journal of Phycology, 2020, 56, 1457-1467.	1.0	3
80	Community- and population-level changes in diatom size structure in a subarctic lake over the last two centuries. PeerJ, 2015, 3, e1074.	0.9	3
81	Conservation and architecture of housekeeping genes in the model marine diatom <i>Thalassiosira pseudonana</i>. New Phytologist, 2022, 234, 1363-1376.	3.5	3
82	Bayesian two-part modeling of phytoplankton biomass and occurrence. Hydrobiologia, 0, , 1.	1.0	2
83	A Trait-Based Clustering for Phytoplankton Biomass Modeling and Prediction. Diversity, 2020, 12, 295.	0.7	1
84	Contrasting transcriptomic responses of a microbial eukaryotic community to oil and dispersant. Environmental Pollution, 2021, 288, 117774.	3.7	1
85	Crude oil and particulate fluxes including marine oil snow sedimentation and flocculant accumulation: Deepwater Horizon oil spill study. International Oil Spill Conference Proceedings, 2021, 2021, .	0.1	1
86	A hypothesis of genome structure in marine phytoplankton. Journal of Eukaryotic Microbiology, 2005, 52, 7S-27S.	0.8	0
87	Reply to Brun et al.: Fingerprint of evolution revealed by shifts in realized phytoplankton niches in natural populations. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E5225-E5225.	3.3	0
88	Phytoplankton. , 2020, , 1-6.		0